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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,154	07/31/2000	Roland Rupp	GR 98 P 3052	5435

7590

06/05/2003

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EXAMINER

KACKAR, RAM N

ART UNIT

PAPER NUMBER

1763

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/630,154

Applicant(s)

RUPP ET AL.

Examiner

Ram N Kackar

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al (JP 02248393) in view of Balog et al (US 4123571).

Kobayashi discloses a susceptor to hold substrates for vapor growth device having a plurality of carbon inserts which would be like tiles having depressions for substrates (Fig 1-3).

Kobayashi et al do not disclose carbon insert to have a coating of metal carbide.

Balog et al teach that metal carbides of refractory metals for metal susceptors as well as graphite have been studied and refractory metal carbides are found useful (Col 3 lines 20-29).

Balog et al disclose the use of tantalum carbide coating extensively (Abstract, Col 1 lines 56-57, Col 2 lines 40-44 and claim 1a)

Therefore it would have been obvious for one having ordinary skill in the art at the time invention was made to apply metal carbide to carbon inserts of Kobayashi for thermochemical stability and resistance to wear.

3. Claims 1-4, 7-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al (JP 02248393) in view of Lennartz (US 5498442).

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Kobayashi discloses a susceptor to hold substrates for vapor growth device having a plurality of carbon inserts which would be like tiles having depressions for substrates (Fig 1-3).

Kobayashi et al do not disclose carbon insert to have a coating of metal carbide.

Lennartz teaches that metal carbides of refractory metals like hafnium, niobium etc display exceptional hardness and thermochemical stability (Col 1 lines 5-18).

Therefore it would have been obvious for one having ordinary skill in the art at the time invention was made to apply metal carbide to carbon inserts of Kobayashi for thermochemical stability and resistance to wear.

4. Claims 1-3, 5, 7, 9-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drage (US4793975) in view of Yamaga et al (US 5614447).

Drage discloses a susceptor to hold substrates for vapor growth device having a plurality of metal inserts, which would be like tiles having depressions for substrates (Fig 1).

Drage do not disclose carbon insert to have a coating of metal carbide.

Yamaga discloses the use of carbide film as a good absorber for infrared rays (Col 5 line 62 to Col 6 line 3).

Therefore, it would have been obvious for one having ordinary skill in the art at the time invention was made to apply metal carbide coating to enable uniform heating due to high absorption of infrared rays and high melting point of metal carbides.

5. Claims 1-4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al (JP 02248393) in view of Kanetake Takasaki (JP 61251021).

Kobayashi discloses a susceptor to hold substrates for vapor growth device having a plurality of carbon inserts which would be like tiles having depressions for substrates (Fig 1-3).

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Kobayashi et al do not disclose carbon insert to have a coating of metal carbide.

Takasaki et al teach that metal carbides like titanium carbide display physical and chemical stability and thermal resistance (Abstract).

Therefore it would have been obvious for one having ordinary skill in the art at the time invention was made to apply metal carbide to carbon inserts of Kobayashi for thermochemical stability and resistance to wear.

Response to Amendment

Applicants amendments filed 4/23/2003 have been considered but they are moot in view of the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram N Kackar whose telephone number is 703 305 3996. The examiner can normally be reached on M-F 8:00 A.M to 5:P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 703 308 1633. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9310 for regular communications and 703 872 9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0661.

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RK

June 2, 2003

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*P. Hansen-Judd
Primary Examiner
Art Unit 1763*